THE WATER SPOT 2000

BITS OF INFORMATION FROM THE HAWAI`I SAFE DRINKING WATER BRANCH

Volume 4, Issue 4 June/July 2000 Phone: (808) 586-4258

AN INTERVIEW WITH THE ENVIRONMENTAL PROTECTION AGENCY, REGION IX'S BARRY POLLOCK (HAWAII PUBLIC WATER SYSTEM SUPERVISION PROJECT OFFICER)

Barry Pollock, the Hawaii Public Water System Supervision (PWSS) Project Officer was in Hawaii in May to conduct the annual program evaluation of the Hawaii Safe Drinking Water Program and made a presentation at the American Water Works Association (AWWA) Hawaii Section Annual Conference. During his stay we had the opportunity to sit down with him and talk about the Hawaii Safe Drinking Water Program.

The Water Spot 2000: Barry, welcome once again to Hawaii and thank you for taking time out of your busy schedule to meet with us for this interview. I know that over the years you have met many of the people who make up the drinking water community in Hawaii, but many of our readers would like to know a little about your background.
Barry: I joined EPA in 1988, after acquiring a Masters in Public Health and a Masters in Environmental/Civil Engineering at the University of California at Berkeley. Since then I have spent 10 years working in the Public Water System Supervision (PWSS) Program at EPA, originally working with Tribal water systems, and now working as the Hawaii, Guam, and Commonwealth of the Northern Marianas Islands (CNMI) PWSS Program Project Officer. I also spent 2 years "on loan" from EPA, to the Republic of Palau Environmental Quality Protection Board, where I served as the staff engineer working on all environmental programs.

I am a Registered Professional Engineer in the State of California, a California certified Grade 3 Water Treatment Operator, and Certified Backflow Prevention Device Tester. In my time off I like to go bicycling, sailing, diving, and fishing.

The Water Spot 2000: Barry, how long have you been associated with the Hawaii Safe Drinking Water Program.
Barry: I first worked with the Hawaii Program in early 1996, while Corine Li, the former Hawaii PWSS Project Officer, was out on maternity leave. After Bill Thurston retired as the Region 9 Drinking Water Office Chief in mid-1998, Corine took over his position, and I became the Hawaii, Guam, and CNMI PWSS Program Project Officer.

The Water Spot 2000: Over the last few years you have been working closely with the staff of the Hawaii Safe Drinking Water Program – what, if any, changes have you seen/observed in the program – any highlights in the last few years!!
Barry: The Hawaii program has been very active during the past few years. Last year, the Hawaii program worked a great deal with the community water systems in Hawaii to ensure they produced and distributed their first Consumer Confidence Reports (CCRs). The Program worked hard to develop, and begin to implement, an approvable source water assessment program. The Program has been diligently developing a Drinking Water State Revolving Fund program, to make loans available for water systems for needed capital improvements. They have been working hard with stakeholders over the past year to develop revised operator certification regulations which meet the new EPA guidelines. All of these new activities are in addition to the ongoing oversight of all the existing regulations, such as the Total Coliform Rule, Surface Water Treatment Rule, lead and copper rule, radionuclides, and the chemical monitoring rules.

The Water Spot 2000: The 1996 Safe Drinking Water Act (SDWA) Amendments have placed many new regulatory requirements on the water systems – what do you see at the major new requirements that face the drinking water community in Hawaii.
Barry: I think one of the biggest new requirements for water systems will be the need to comply with the revised operator certification guidelines, which is requiring water system distribution system operators to be certified for the first time in Hawaii. The newly revised regulations for surface water treatment (Interim Enhance Surface Water Treatment Rule) and the Disinfectant/Disinfection By-Products Rule will begin impacting water systems next year. EPA will also be finalizing the groundwater, arsenic, revised radionuclide, and radon rules later this year or early next year, and all of these new rules will have impacts on most systems, at the very least changes in monitoring requirements.

The Water Spot 2000: Many of our readers represent water systems who must comply with these new regulatory requirements – how do you see the Hawaii Safe Drinking Water Program assisting the water systems in meeting these requirements.
Barry: I think the most important thing is keeping the lines of communication open – listening to what the concerns of the regulated community and others are, and trying to address those concerns as much as possible within the boundaries of what is required by the Safe Drinking Water Act. Also, providing as much training and technical assistance as possible. The Hawaii program has been very active in providing training for water purveyors over the years. For example, recently the Safe Drinking Water Branch (SDWB) has provided water sampling training, and training on how to write and distribute the CCRs. Currently, the Program is supporting a great deal of operator training, especially for distribution system operators.

The Water Spot 2000: You have also worked closely with the other Pacific Islands and territories -- Do you envision any type of working relationship between Hawaii and the island territories.
Barry: I have oversight responsibilities for the PWSS Programs in Guam and CNMI, and I have been involved with technical assistance to the Republic of Palau. Both the SDWB and the Hawaii AWWA Water for People (WFP) Program have been providing a great deal of assistance to these and other Pacific Islands. The SDWB has made space available in the training it provides to the Pacific Islanders, and WFP volunteers have been providing a great deal of training and even onsite assistance in Palau, Yap, and other islands. This has been a tremendous benefit to the utilities on these islands, which lack many of the technical resources we take for granted. I see my role as helping to facilitate increasing contact and assistance for persons in Hawaii to the other Pacific Islands – and that includes not only SDWB, but hopefully utilities, and persons from private industry as well.

The Water Spot 2000: Many water systems see the Hawaii Drinking Water Program as the overseers of drinking water compliance in Hawaii, much the way EPA oversees the Hawaii Safe Drinking Water Program to ensure that the State is implementing federal drinking water requirements. If you could, our readers would like a hint at how the Hawaii Drinking Water Program grade out in this year's evaluation.
Barry: The Hawaii Program is meeting the core requirements to maintain primacy enforcement responsibility, or primacy, for the PWSS Program. This includes ensuring that all public water systems are meeting all the appropriate standards (MCLs, monitoring and reporting, treatment techniques). The program, to date, has met the deadlines for new regulations and new program adoption and implementation, but because of the increased requirements by EPA since the 1996 amendments, it may become increasingly difficult to meet all requirements on time. All in all, I give the SDWB high marks in their implementation of the PWSS Program!!

The Water Spot 2000: Barry, its been a pleasure doing this interview with you and again thank you for taking the time to meet with us. Any final comment you'd like to make to our readers.
Barry: I'd just like to add that the public water systems in Hawaii should also be commended for their exemplary compliance with both Federal and State regulations. Hawaii was one of a very small number of states to have documented 100% compliance with the first year CCR requirements. In general, the water systems in Hawaii have a very high compliance rate with most of the drinking water regulations.

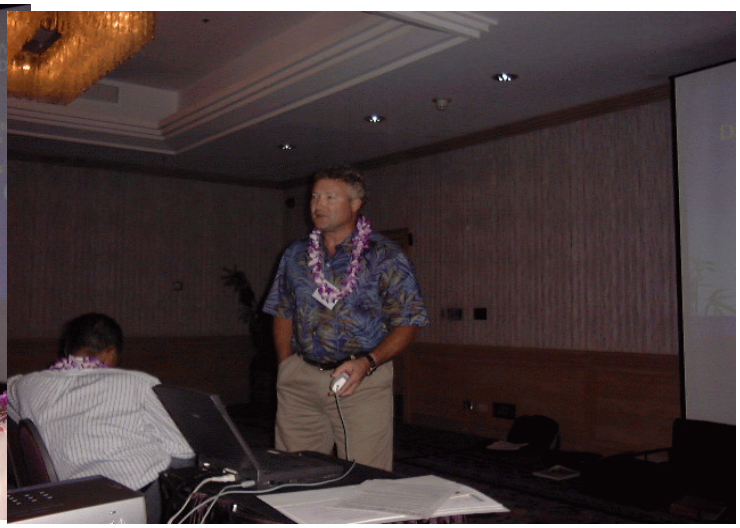
On a personal note, I really enjoyed working with both state personnel, and when I have the opportunity, to interact directly with the public water systems, such as at the Hawaii AWWA conference. In short, to both the State and public water systems ---- **Mahalo and keep up the good work!**

SCENES FROM THE 2000 AWWA HAWAII SECTION ANNUAL CONFERENCE

Left: Bill Wong (DOH) and Roger Fujioka (UH-WRRC) exchanging greetings before the "Regulatory Update Session".

Right: Barry Pollock (EPA) discusses new EPA requirements for Safe Drinking Water Programs.

Left: As usual, Bill Wong gets his turn to do his PowerPoint presentation. Nice high tech graphics, Bill, but do we still have to implement the regulations!! *SDWB Staff* **(**



Right: Glenn Johannsen of (RCAC) gives his presentation on operator training courses.

REMINDER: CONSUMER CONFIDENCE REPORT (FOR MONITORING YEAR 1999) DUE JULY 1, 2000

<u>This year's CCR deadlines are as follows</u>:

(1) CCRs must be prepared and distributed to customers by: **JULY 1, 2000**

(2) Water systems must submit a certification that they have prepared and distributed the CCR to their customers by: **OCTOBER 1, 2000**

<u>IMPORTANT NOTE</u>: The regulations require that you submit a copy of your Consumer Confidence Report to the Safe Drinking Water Branch at the same time that it is distributed to your consumers. Please send your CCRs to: Safe Drinking Water Branch, 919 Ala Moana Boulevard, Room 308, Honolulu, Hawaii 96814, Attention: Nora Macariola-See.

UPDATE ON THE GROUNDWATER RULE (GWR)

(Edited from EPA Proposed Groundwater Rule Fact Sheet)

EPA is considering a rule which will specify the appropriate use of disinfection in groundwater and address other components of groundwater systems to assure public health protection. The Groundwater Rule (GWR) will establish multiple barriers to protect against bacteria and viruses in drinking water from groundwater sources and will establish a targeted strategy to identify groundwater systems at high risk for fecal contamination. The Groundwater Rule was proposed in April 2000 and published in the May 10, 2000 Federal Register, EPA-815-2-00-002.

BACKGROUND

Although groundwater has historically been thought to be free of microbial contamination, recent research indicates that some groundwaters are a source of waterborne disease. Most cases of waterborne disease are characterized by gastrointestinal symptoms (diarrhea, vomiting, etc.) that are frequently self limiting in healthy individuals and rarely require medical treatment. However, these same symptoms are much more serious and can be fatal for persons in sensitive subpopulations (such as, young children and persons with compromised immune systems). In addition, research indicates that some viral pathogens found in groundwater are linked to long term health effects (for example, adult onset diabetes, myocarditis). EPA does not believe all groundwater systems are contaminated; data indicate that only a small percentage of groundwater systems are contaminated. However, the health impacts and the number of people potentially exposed to microbial pathogens in groundwater indicate that a regulatory response is warranted.

Presently, only surface water systems and systems using groundwater under the influence of surface water are required to disinfect their water supplies. The 1996 amendments to the Safe Drinking Water Act require EPA to develop regulations that require the disinfection of groundwater systems, as necessary, to protect the public health. The proposed GWR will specify when corrective action (including disinfection) is required to protect consumers who receive water from groundwater systems from bacteria and viruses. This rule will also apply to systems with mixed surface and groundwater sources if the groundwater is added directly to the distribution system and provided to the consumer without treatment.

This rule will not apply to those on private wells or groundwater systems serving fewer than 25 people or with fewer than 15 service connections. EPA recommends private well owners test coliform bacteria once each year.

WHAT REQUIREMENTS ARE BEING PROPOSED FOR THE GROUNDWATER RULE?

- **Sanitary surveys conducted by the state and identification of significant deficiencies.**

  Applies to: all groundwater systems and surface water systems that add groundwater directly to the distribution system without treatment.
  Frequency: every 3 years for community water systems; 5 years for non-community water systems consistent with the 1998 Interim Enhanced Surface Water Treatment Rule. (Community water systems serve the same population year-round - such as houses and apartment buildings; Non-community water systems do not serve the same people year-round - such as schools, factories, hospitals, gas stations or campgrounds which have their own water systems.)
  Key components: (1) State must perform sanitary surveys and address the 8 elements from the joint EPA/ ASDWA guidance; (2) State must have authority to enforce corrective action requirements; (3) State must provide list of significant deficiencies (such as those that require corrective action) to the system within 30 days of identification of the deficiencies.

  **** There are 8 components in a sanitary survey and the Safe Drinking Water Branch (SDWB) is tentatively planning to have a workshop on Sanitary Surveys. If you are interested in attending this workshop, please contact the SDWB to place your name on the registration list.**

- **Source water microbial monitoring must be done by systems that do not treat and that draw from hydrogeologically sensitive aquifers or have detected bacteria within the system's distribution system.**

  Hydrogeologic Sensitive Assessment
  Applies to: all groundwater systems which do not provide 4-log virus inactivation/removal.

Frequency: One time assessment of sensitivity (within 6 years of the final rule's date of publication for community and 8 years for non-community water systems). Sensitive systems would be required to monitor monthly.
Key components: (1) State must conduct a one-time assessment of all systems that do not provide 4-log virus inactivation/removal to identify those systems located in sensitive aquifers; (2) EPA considers karst, gravel, or fractured bedrock aquifers to be sensitive to microbial contamination. State may waive the sensitivity determination if there is hydrogeologic barrier(s) to fecal contamination.

Source Water Monitoring
Applies to: all groundwater systems that are sensitive or have contamination in their distribution system (triggered monitoring)..
Frequency: Monthly for sensitive systems; once for triggered monitoring.
Key components: (1) Routine monitoring. For systems determined by the State to be hydrogeologically sensitive the system must conduct monthly source water monitoring for fecal indicators. Sampling frequency may be reduced after (12) negative samples.; (2) Triggered Monitoring. If a total coliform-positive sample is found in the distribution system, then the system must collect one source water sample.

U **Corrective action by any system with significant deficiencies or positive microbial samples indicating fecal contamination.**

Applies to: all groundwater systems that have a significant deficiency or have detected fecal contamination in their source water.
Frequency: Correct within 90 days or longer with a State-approved schedule.
Key components: (1) Significant Deficiency or Source Water Contamination. If a ground water system is notified of significant deficiencies by the State or notified of a source water sample positive, within 90 days it must correct the contamination problem (by eliminating the contamination source), correct the significant deficiencies, provide an alternative source water or install a treatment process which reliably achieves 4-log removal or inactivation of viruses. A system may take longer than 90 days for corrective action within a state-approved plan. Systems must notify the State of completion of the corrective action or the State must confirm corrective action within 30 days after the 90 day period or scheduled corrective action.; (2) Treatment. Systems required to provide treatment must provide and monitor treatment to ensure that 4-log virus inactivation and/or removal..

For more information on the proposed Groundwater Rule, please contact the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit EPA's website at http://www.epa.gov/safewater/gwr.html, .

This proposed rule was published in the Federal Register on May 10, 2000. Those wishing to provide comments to the proposed rule must do so within 90 days of Federal Register publication or by August 9, 2000. Please send your comments to EPA Drinking Water Docket #W-98-23, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460, or via e-mail to ow-docket@epa.gov.

UNREGULATED CONTAMINANT MONITORING REGULATIONS (UCMR)

The final Groundwater Rule is expected in the Fall of 2000 with the rule taking effect in the Fall of 2003.

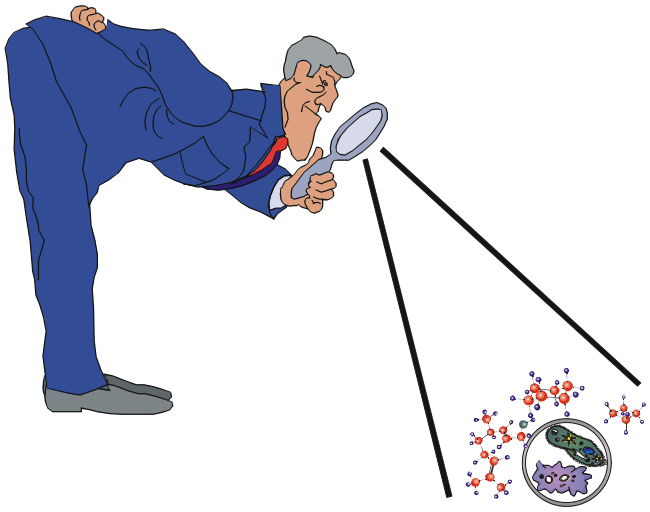
The revised Unregulated Contaminant Monitoring Regulation (UCMR) was published in the September 17, 1999 Federal Register. The purpose of the UCMR as required under the Safe Drinking Water Act (SDWA) is to obtain reliable data related to the occurrence of certain contaminants in public water systems in order to determine whether or not to regulate them. The UCMR was also designed to help identify the potential adverse health effects of unregulated contaminants through contaminant exposure.

The UCMR establishes criteria for a revised program to monitoring for unregulated contaminants, and identifies a list of unregulated contaminants to be monitored. Under the UCMR, all large public water systems, and a representative sample of 800 small public water systems will monitor for the unregulated contaminants. EPA will pay for the laboratory analysis and shipping costs for selected small public water systems. There are three main components to the UCMR Program: List 1, Assessment Monitoring; List 2, Screening Survey(s); and List 3, Pre-Screen Testing.

Assessment Monitoring (List 1) will be conducted from 2001 to 2003. All large PWSs (systems serving over 10,000 people), and a nation-wide randomly selected sample of 800 small public water system (serving less than 10,000 people) are required to monitor for Assessment Monitoring contaminants.

Specifics of the Screening Surveys (List 2) implementation will be contained in the final Screening Survey rule (a supplement to the UCMR) which is expected in the Fall of 2000. It is expected that Screening Surveys will be conducted on a randomly selected subset of the large and small systems that conduct Assessment Monitoring. EPA expects that the first Screening Survey will be conducted in 2001 for small systems and in 2002 for large systems to monitor for List 2 contaminants. A second Screening Survey is expected to be implemented in 2003, for the collection and analysis of Aeromonas. The results of the Screening Survey will be used to evaluate the contaminant occurrence in water systems, and help in deciding whether or not to move List 2 (Screening Survey) contaminants to List 1 (Assessment Monitoring), or if any regulatory requirements are needed. The systems that are selected for Screening Survey monitoring will be specified in the State Plan. Systems selected for Screening Survey One (2001 and 2002) will monitor at the same frequency as the Assessment Monitoring Systems. The frequency and timing (which month of the year) for this monitoring will be specified for each system in the State Plan. Systems that are selected for Screening Survey Two will monitoring six times during the year for a microbiological contaminant.

The Pre-Screen Testing will be conducted on a subset of the small and large systems that are determined to be most vulnerable to occurrence of the contaminants listed in List 3. A schedule and contaminants for Pre-Screen Testing has yet to be determined. EPA will be working with the State (through the State Plan and Partnership Agreement) to identify the Pre-Screening Testing system, and to describe monitoring requirements for these systems in more detail at a later time, after EPA has provided guidance on the selection of these systems.



While the State is not required to implement the UCMR, it is encouraged to participate and assist EPA to maximum extent possible as to implement UCMR activities. The Safe Drinking Water Branch is working with EPA to develop a partnership agreement. The partnership agreement is intended to serve as the implementation mechanism for the UCMR by identifying and assigning lead responsibilities for key activities that must be conducted to successfully implement the regulation over the five-year monitoring cycle which begins in 2001 and ends in 2005.

The following contains a listing of the Assessment Monitoring (List 1), Screening Survey (List 2), and Pre-Screening Testing (List 3) contaminants.

LIST 1 - Assessment Monitoring
(Chemical Contaminants)
2,4-dinitrotoluene
2,6-dinitrotoluene
Acetochlor
DCPA mono- acid degradate
DCPA di- acid degradate
4,4'-DDE
EPTC
Molinate
MTBE
Nitrobenzene
Perchlorate
Terbacil

LIST 2 - Screening Survey
(Chemical Contaminants)
1,2-diphenylhydrazine
2-methyl-phenol
2,4-dicchlorophenol
2,4-dinitrophenol
2,4,6-trichlorophenol
Diazinon
Disulfoton
Fonofos
Linuron
Low-Level Nitrobenzene
Prometon
Terbufos
Alachlor ESA
Polonium-210
RDX

(Microbiological Contaminants)
Aeromonas

(Radionuclides)
Lead-210

LIST 3 - Pre-Screen Testing
(Microorganisms)
Cyanobacteria
Echoviruses
Helicobacter pylori
Microsporidia
Calciviruses
Adenoviruses

EPA PUBLIC NOTIFICATION REGULATIONS REVISED

(Edited from EPA Office of Water - Drinking Water Public Notification Regulation Fact Sheets)

As required by the 1996 Safe Drinking Water Act Amendments, the USEPA revised the public notification requirements in April of 2000. These changes are expected to make the notification process easier and more effective.

Consumers will receive quicker notification in emergencies and water systems will be allowed to create shorter and fewer notices that are easier to understand. Under this revision, water suppliers are required to inform the public/consumers within 24 hours of any situation that may posing an acute health risk due to short-term exposure. Previously, water suppliers had up to 72 hours to provide this information. Water suppliers will also be allowed to combine notices for less serious problems and make the notices shorter and easier to understand.

The State and water systems must now use concise standard language and notices. The new requirements makes the standard health effects language more concise and give water systems a standard set of procedures to follow. It will also make notices easier for water systems to issue while providing better information to the public.

The revised regulation separates public notices into three tiers:

Immediate notice (Tier 1): For violations and situations that have a significant potential for serious adverse health effects due to short-term exposure. These notices are required within 24 hours of the violation. Violations and situations include (but not limited to) **fecal coliform MCL violation or failure to test for fecal coliform after a total coliform positive; nitrate/nitrite MCL violation or failure to take confirmation sample; a waterborne disease outbreak or emergency; or situations determined by the primacy agency)**.

Notice as soon as Possible (Tier 2): For violations and situations that have the potential to be serious, but are not immediate, adverse health effects. These notices are required within 30 days or as soon as possible. An extension of up to three months for violations that have been resolved (State primacy discretion). Violations and situations include (but not limited to) **all other MCL, MRDL, and TT violations not included in Tier 1 requirements; monitoring and testing procedures violations (as determined by the primacy agency); and failure to comply with variance or exemption requirements**.

Annual Notice (Tier 3): All other violations and situations that are not Tier 1 or Tier 2. These notices are required within 12 months of the violation and may be included as part of a single annual report (such as in some cases, the consumer confidence report). Violations and situations include (but not limited to) **all other monitoring or testing procedures violations not included in Tier 1 or Tier 2 notices; system operating under an variance or exemption; and special public notices**.

WHAT INFORMATION MUST BE INCLUDED IN THE NOTICE?

- Description of the violation that occurred, plus the potential health effects;
- Population at risk and if alternate water supplies need to be used;
- What the water system is doing to correct the problem;
- Actions consumers can take;
- When the violation occurred and when the system expects it to be resolved;
- How to contact the water system for more information; and
- Language encouraging broader distribution of the notice.

In order to assist public water systems in meeting this revised regulation, EPA and the Association of State Drinking Water Administrators (ASDWA) will be issuing a "Public Notification Handbook". The "Handbook" will provide templates for notices and other aids to assist water systems develop notices for violations.

Copies of the final public notification regulation may be obtained by calling the Safe Drinking Water Hotline at 1-800-426-4791 or downloaded from EPA's website at http://www.epa.gov/safewater/pn.html.

The Water Spot is published by the Safe Drinking Water Branch, Environmental Management Division of the Hawai`i State Department of Health and is distributed to water purveyors, water system operators, staff, consultants, and other interested parties.

The Water Spot may also be viewed on the Safe Drinking Water Branch's web site at:
http://www.hawaii.gov/health/eh/sdwb

Please send your suggestions, ideas, questions or comments to:

THE WATER SPOT 2000
Safe Drinking Water Branch
State Department of Health
919 Ala Moana Blvd., Room 308
Honolulu, Hawaii 96814

OR

Fax us at (808) 586-4370, Attn: "THE WATER SPOT 2000"

SDWB WEB SITE:
http://www.hawaii.gov/health/eh/sdwb
HISWAP WEB SITE:
http://www.aloha.net/~will/hiswap.html

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